CHLOROSULFONIC ACID

UN 1754

Shipping Name: Chlorosulfonic acid
Other Names: Chlorosulfuric acid
Sulfuric chlorohydrin

WARNING!

- POISON! BREATHING THE VAPORS OR SWALLOWING THE LIQUID CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!
- Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- DO NOT USE WATER! REACTS VIOLENTLY WITH WATER TO FORM TOXIC HYDROCHLORIC AND SULFURIC ACIDS!
- EXTREMELY STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Reacts with metals in the presence of moisture to form highly flammable hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides and hydrogen chloride
- Corrosive to most metals

Description:

- Colorless to slightly yellow liquid
- Pungent odor
- Reacts violently with water to form toxic hydrochloric acid and sulfuric acid and sinks in water
- Vapors are heavier than air and will collect and stay in low areas
- Nonflammable but may cause combustibles to ignite
- Produces large amounts of vapor when exposed to water

Awareness and Operational Training Level Response:

- DO NOT ATTEMPT RESCUE!
- Stay upwind and uphill
- Determine the extent of the problem
- BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Operational Level Training Response:

RELEASE, NO FIRE:

- DO NOT USE WATER DIRECTLY ON PRODUCT - reacts violently with water
- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of release
- Use large amounts of water well away from the release to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Material does not burn; fight surrounding fire with dry chemical - if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of expanding) withdraw immediately to a secure location

First Aid:

- DO NOT ATTEMPT RESCUE!
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - Inhalation - remove the victim to fresh air and give oxygen if available
  - Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

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